

Assignment-4

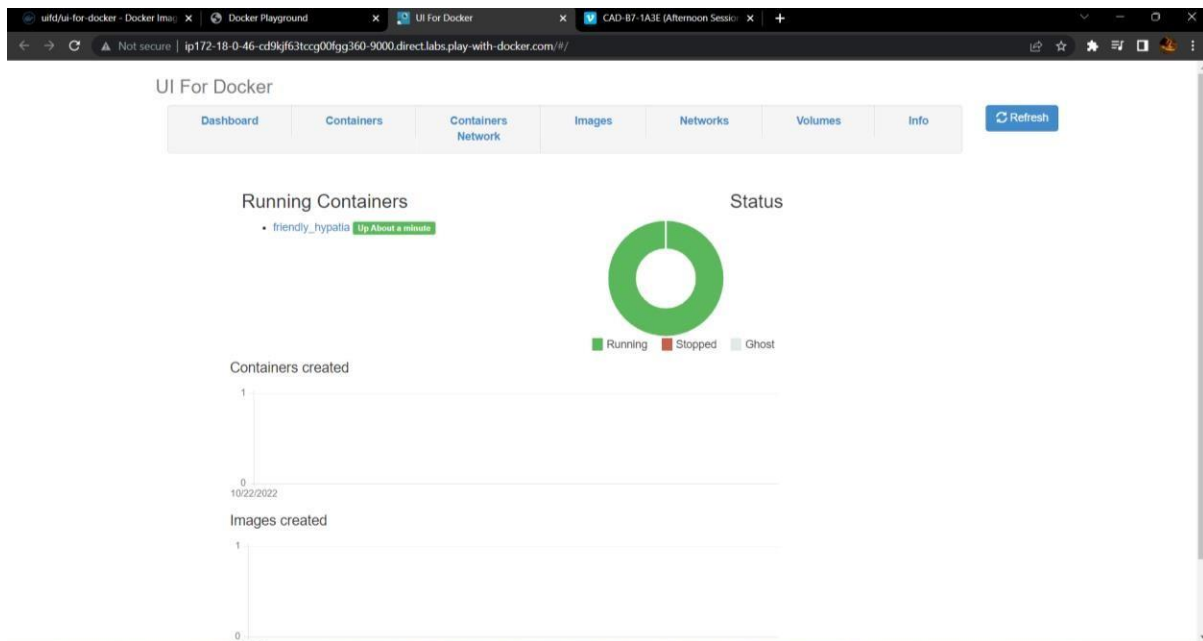
Date	20 October 2022
Team ID	PNT2022TMID33413
Project Name	Personal Expense Tracker Application
Maximum Marks	2 Marks

1.Pull an Image from docker hub and run it in docker playground.

The screenshot shows the Docker Playground interface for a session titled 'cd9kjf63_cd9kjh63tccg00fgg36g'. The interface includes a sidebar with a clock showing 03:58:38, a 'CLOSE SESSION' button, and a list of instances. The main area displays the IP address 192.168.0.13 and an 'OPEN PORT' button. Below this, there are sections for Memory, CPU, and SSH. The SSH section shows the command 'ssh ip172-18-0-46-cd9kjf63tccg00fgg360@direct.labs.play-' and a 'DELETE' button. The terminal output shows the following commands and results:

```
# The FWD team.
#####
(node1) (local) root@192.168.0.13 ~
$ docker ps -a
CONTAINER ID   IMAGE      COMMAND                  CREATED        STATUS        PORTS        NAMES
(node1) (local) root@192.168.0.13 ~
$ docker pull uifd/ui-for-docker
Using default tag: latest
latest: Pulling from uifd/ui-for-docker
841194d080c8: Pull complete
Digest: sha256:fe371fff5a69549269b24073a5ab1244dd4c0b834cbadf244870572150b1cb749
Status: Downloaded newer image for uifd/ui-for-docker:latest
docker.io/uifd/ui-for-docker:latest
(node1) (local) root@192.168.0.13 ~
$ docker run -d -p 9000:9000 --privileged -v /var/run/docker.sock:/var/run/docker.sock uifd/ui-for-docker
40592613046c0e90ad9757849a942b162bb56067034f73a5ccf38883fdecbe7d
(node1) (local) root@192.168.0.13 ~
$ docker ps -a
CONTAINER ID   IMAGE      COMMAND                  CREATED        STATUS        PORTS        NAMES
40592613046c   uifd/ui-for-docker   "/ui-for-docker"       13 seconds ago Up 11 seconds 0.0.0.0:9000->9000/tcp   friendly_hypatia
(node1) (local) root@192.168.0.13 ~
```

The screenshot shows the Docker Playground interface for a session titled 'cd9kjf63_cd9kjh63'. The interface includes a sidebar with a clock showing 03:58:27, a 'CLOSE SESSION' button, and a list of instances. The main area displays the IP address 192.168.0.13 and an 'OPEN PORT' button. Below this, there are sections for Memory, CPU, and SSH. The SSH section shows the command 'ssh ip172-18-0-46-cd9kjf63tccg00fgg360@direct.labs.play-' and a 'DELETE' button. A dialog box is open, asking 'What port would you like to open?' with the input '9000'. The terminal output shows the same commands and results as the previous screenshot.



2. Create a docker file for the jobportal application and deploy it in Docker desktop application.

Dockerfile

FROM python:3.10

WORKDIR /app

ADD . /app

COPY requirements.txt /app

RUN python3 -m pip install -r requirements.txt

EXPOSE 3000

CMD ["python", "app.py", "--host", "0.0.0.0"]

```

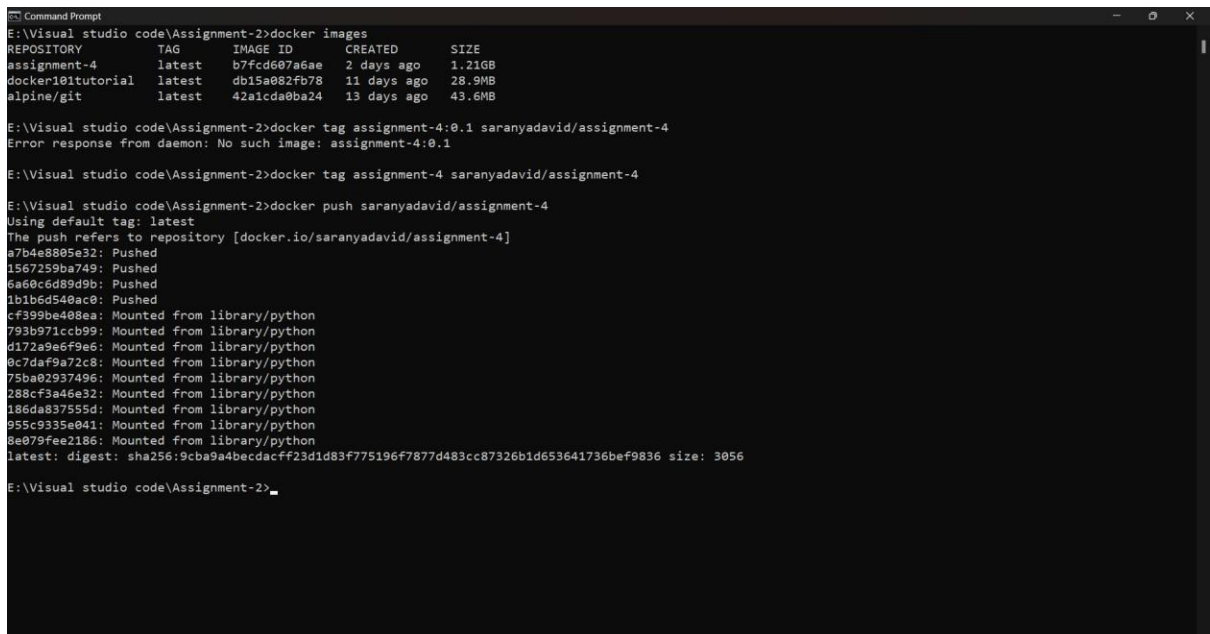
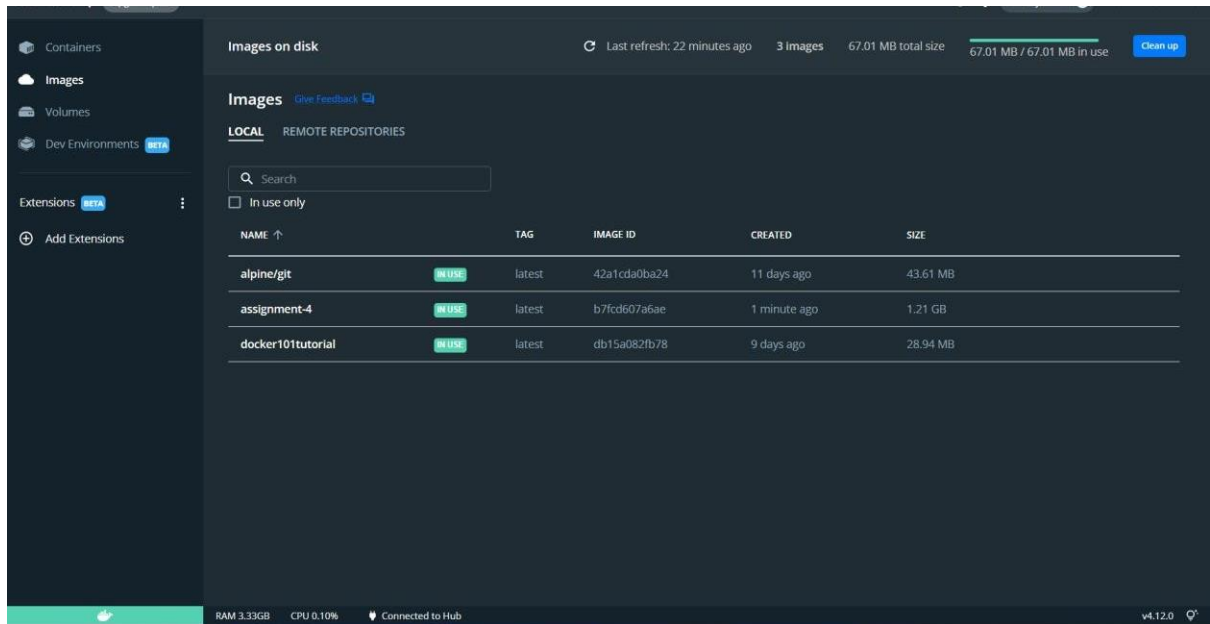
Command Prompt - docker run -p 5000:5000 assignment-4
E:\Visual studio code\Assignment-2\docker build -t assignment-4 .
[+] Building 61.1s (10/10) FINISHED
-> [internal] load build definition from Dockerfile                                0.0s
-> -- transferring Dockerfile: 32B                                                0.0s
-> [internal] load .dockerignore                                                    0.0s
-> -- transferring context: 2B                                                     0.0s
-> [internal] load metadata for docker.io/library/python:3.10.7                  1.0s
-> [2/5] FROM docker.io/library/python:3.10.7@sha256:53e577280d363233ee82aeb5119440271f5eb24f90c61464efe9157adb  0.0s
-> [internal] load build context                                                    0.1s
-> -- transferring context: 185.52kB                                              0.1s
-> CACHED [2/5] WORKDIR /app                                                       0.0s
-> [3/5] ADD . /app                                                                0.5s
-> [4/5] COPY requirements.txt /app                                                0.1s
-> [5/5] RUN python3 -m pip install -r requirements.txt                          37.4s
-> exporting to image                                                              1.0s
-> exporting layers                                                                1.0s
-> writing image sha256:b7fcd007afae0832c4b215008dd0bdc6ee54c5d85afe2d1a4b08144a4d4f03  0.0s
-> naming to docker.io/library/assignment-4                                       0.0s

Use 'docker scan' to run Snyk tests against images to find vulnerabilities and learn how to fix them

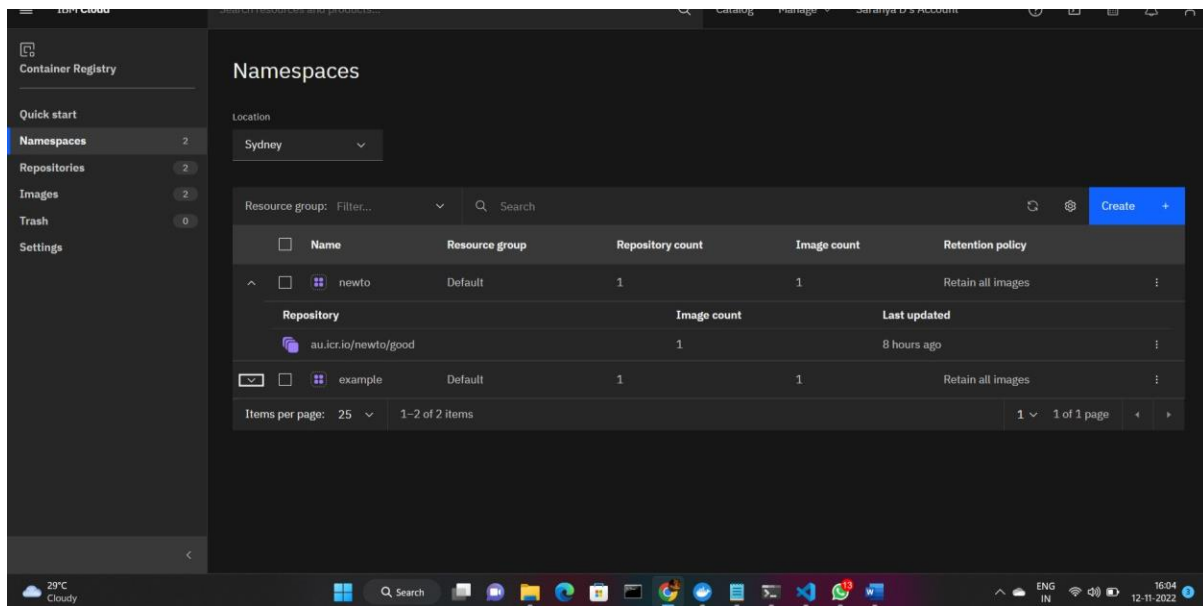
E:\Visual studio code\Assignment-2\docker images
REPOSITORY          TAG         IMAGE ID      CREATED       SIZE
assignment-4        latest     b7fcd007afae  11 seconds ago 1.21GB
docker101tutorial   latest     db15a082fb78  8 days ago    28.99B
alpine/git          latest     42a1cda0ba24  10 days ago   43.69B

E:\Visual studio code\Assignment-2\docker run -p 5000:5000 assignment-4
* Serving Flask app 'app'
* Debug mode: on
WARNING: This is a development server. Do not use it in a production deployment. Use a production WSGI server instead.
* Running on http://127.0.0.1:5002
Press CTRL+C to quit
* Restarting with stat
* Debugger is active!
* Debugger PIN: 726-055-480

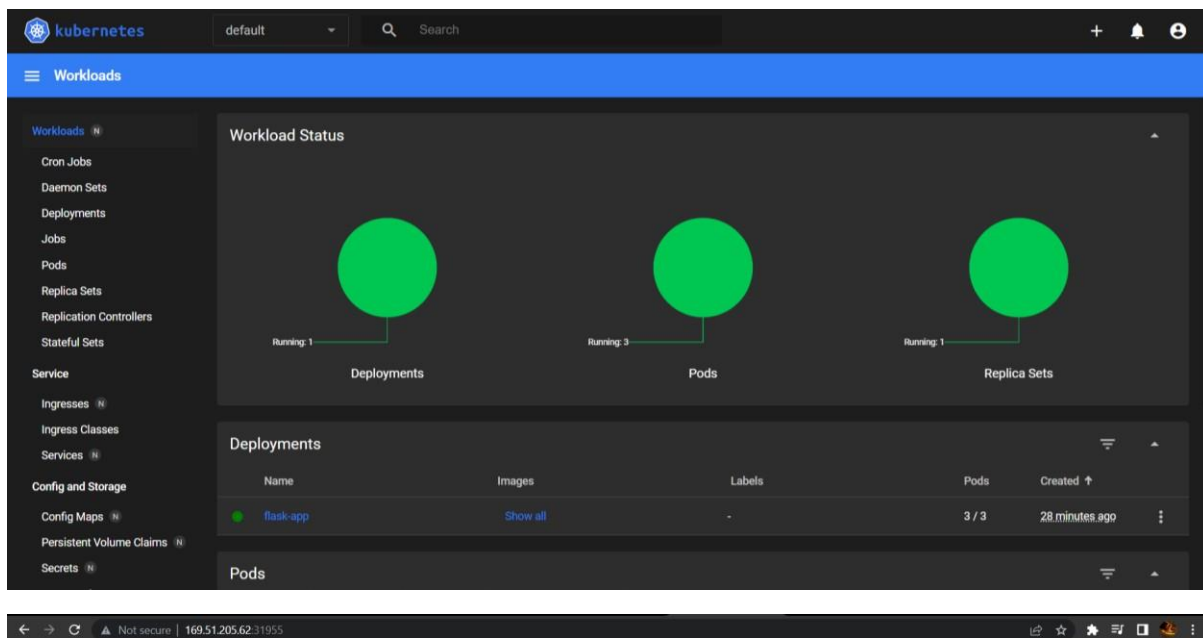
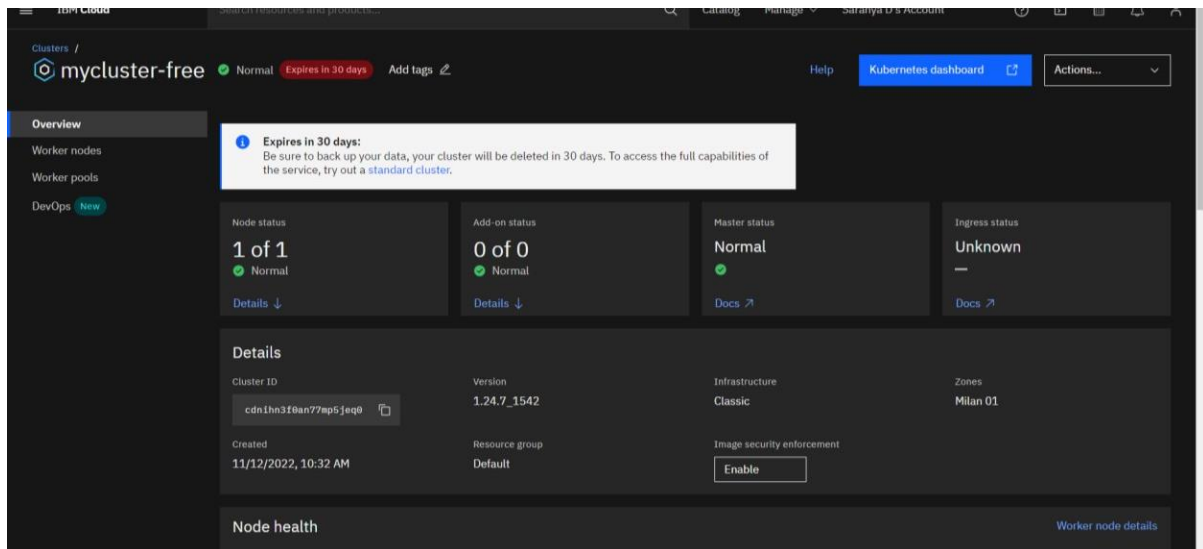
```



3. Create a IBM container registry and deploy helloworld app or jobportalapp.



```
10.144.214.208 Ready <none> 4h28m v1.24.7+IKS
E:\> cd E:\Visual studio code\Assignment-2
E:\Visual studio code\Assignment-2>kubectrl create -f deployment.yaml
deployment.apps/flask-app created
E:\Visual studio code\Assignment-2>kubectrl create -f service.yaml
service/flask-app created
E:\Visual studio code\Assignment-2>kubectrl expose deployment flask-app --type=NodePort --name=flask-app
Error from server (AlreadyExists): services "flask-app" already exists
E:\Visual studio code\Assignment-2>kubectrl get services flask-app
NAME      TYPE      CLUSTER-IP    EXTERNAL-IP    PORT(S)    AGE
flask-app ClusterIP  172.21.224.6  <none>         3002/TCP   3m33s
E:\Visual studio code\Assignment-2>kubectrl get pods
NAME                                READY   STATUS    RESTARTS   AGE
flask-app-74b97586c4-c9kfb         1/1     Running   0           8m28s
flask-app-74b97586c4-m9bpr         1/1     Running   0           8m28s
flask-app-74b97586c4-wsjtc         1/1     Running   0           8m28s
E:\Visual studio code\Assignment-2>kubectrl delete -f service.yaml
service "flask-app" deleted
E:\Visual studio code\Assignment-2>kubectrl create -f service.yaml
service/flask-app created
E:\Visual studio code\Assignment-2>
```



Student Registration Portal

Enter Email ID:

Enter Username:

Enter Password:

Enter Roll number:

Browser link : <http://169.51.205.62:31955/>